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DEPENDENCE OF EAST GERMANY ON WESTERN IMPORTS

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SUMMARY

Soviet-backed East German measures against Berlin may provoke a crisis in which the United States, West Germany and allied countries would take a variety of countermeasures. The purpose of this paper is to appraise the dependence of East Germany on trade with the West and her vulnerability to a Western trade embargo. The discussion attempts to point out the factors that might give force to, and others that might limit the impact of, such an embargo.

The analysis of East Germany's imports from Western Europe points to a variety of articles which East Germany prefers to get, and has been able to get, from Western Europe and in particular West Germany. Chemical and machinery products are notable for their preponderance of Western sources, and so are special steels and other special materials; but some common products should not be overlooked. Generally, superior quality and easier availability induce many imports from the West, and there are often other advantages connected with getting the goods from Western sources. Despite the dominant place of the Soviet Bloc in total East German imports, the dependence on Western sources is therefore not negligible. It is probably greater than with all other Bloc countries. A denial of imports from Western Europe would cause much inconvenience to East Germany and a variety of bottlenecks. A denial of Western maritime services would cause additional inconvenience.

The specific effects on the East German economy, if these imports were blocked, cannot be predicted clearly. The primary effects would appear over a wide range of economic activities — and fairly quickly, because of the specialized nature of many imports (machinery) and the general tightness of

inventories. They would tend to retard the execution of many projects in the local investment and consumption programs, and in the export program. A number of examples are given. Left unchecked, these influences would cause disturbance in that highly stressed economic system and force it off its timetable. Even if East Germany attempted to re-allocate its resources to cushion the blow on some more essential projects, it could not help but fall behind on some of the tasks to which the regime is committed.

The major uncertainty lies in the contribution that the Soviet Union might want to make toward alleviating the plight of its favorite Satellite. This contribution might consist of temporarily foregoing some of East Germany's exports to the Bloc area, or of substituting Bloc supplies for Western imports. In either case, the burden of the Western trade embargo would be partly shifted to the Soviet Union and perhaps other Bloc countries. This would ease the East German situation, but would not alleviate it completely because of the specificity of many of the imports from the West and the probable difficulty of finding substitutes for all of them in the short run. To the extent that the Soviet Union could organize East German imports from the West via other Bloc countries, and East German exports by similar indirect routes, it could counteract the embargo more cheaply; but Allied measures could make this difficult.

The impact on the Soviet economy is not analyzed here. Some East German exports to the Soviet Union are linked to important projects there; and if the Soviet furnished substitute exports to East Germany, it would undoubtedly hurt presently planned projects in the Bloc. All that can be said here is that a Western embargo on exports to East Germany in a crisis situation would disturb the Soviet Bloc system and force the Soviet Union to accept some of the direct economic costs. Other factors would determine the political effects of this disturbance.

A short-term Western embargo on East German trade would also have consequences in Western Europe. Interruption of imports from East Germany would probably not pose a serious problem, although, in the case of lignite, a determined conversion effort would be called for to reduce West German requirements. Sales problems would probably cause more concern to the West German government and other Western European governments. The strength of the sales pressures coming from some of their industries will depend, of course, on the state of markets. In any event, some interests would be affected and there would be some complaints. Whether the West German government would be ready to override these pressures in a crisis developing over Berlin would depend on its resolution and on steps taken by the NATO allies.

Considering the quantities of trade and the political interests involved, it is clear that West Germany's position would be of first importance in deciding on an embargo of East German trade. But it is also clear that that position would be influenced by the readiness of Britain, and possibly other countries, to join in the embargo and by the readiness of the United States to oppose Soviet-East German moves by appropriate measures. Without British cooperation, West Germany would probably fear that Britain and others would seek to make trade gains at her expense; and without resolute American action, she might not be ready to take any measures against East German interference with Allied Berlin traffic.

The impact of a Western embargo on East Germany would depend in part on the forcefulness of Western response in other fields. Economic counter-measures against Soviet pressure can add force to positive political and military measures taken in defense of Western interests in the area; they are no substitute for such measures.

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I. INTRODUCTION

The Soviet efforts to expand communist influence in Germany may ultimately involve West Germany and the Western allies in an acute conflict with East Germany. The crisis may arise over the status of Berlin and Western access to the city; it may be precipitated by actions of East Germany; and the West may want to put economic pressure on East Germany in the framework of other political and military measures. For this eventuality, we should appraise East Germany's vulnerability to economic countermeasures.

East Germany seems to play two key roles in Soviet foreign policy:

(1) it is the agent through which the Soviet Union hopes to conquer all of Germany; and (2) it is an important cog in the industrial development of the Soviet Bloc and the extension of its influence to other countries. To enable East Germany to play these roles, the USSR is striving to expand East German industrial and commercial activity and establish the puppet state as a quasi-sovereign agent which will conduct its own affairs in peace and war. The Soviet Union has launched a program to accelerate East Germany's economic development and a diplomatic campaign to boost her status. Communist leaders have also talked of the Soviet Union giving large credits and permitting East Germany to develop import surpluses in trade with her, but no clear evidence of such developments has appeared so far.¹

¹SED Chief Ulbricht, in the presence of Khrushchev, announced at the July 1958 party congress that the Soviet Union would assist East Germany to a degree unknown till now "through commodity exports in excess of imports". But the latest published data on East German foreign trade suggest that the commodity export surplus vis-a-vis the Soviet Union increased from 300 to 600 million rubles from 1957 to 1958, (Vierteljahrshefte zur Statistik, 1959, No. 1, p. 20.) It may be that the "Soviet credits" simply consist of the equivalent of the goods and services absorbed by the Soviet occupation forces, i.e., that the reduction, and in 1953 cancellation, of occupation cost levies on East Germany is counted as a (recurrent?) Soviet credit.

See Appendix: Soviet-East German Trade in the Statistics of the Two Countries.

These efforts present various problems to the West. Some of them relate to economic, political and military conditions in West Germany (including Berlin), which may be considered the immediate targets of the East German buildup; others relate to the state of cooperation and alliance between West Germany and the United States and Western neighbors;¹ still others to economic and political factors elsewhere in Europe and in overseas areas where the East German buildup makes itself felt. Many things could be done in West Germany, the NATO alliance and in other places that might affect the course of events. This paper considers only a Western maneuver which would employ limited means over a limited time: The central question is the extent to which West Germany, in cooperation with her NATO allies, can inflict temporary damage on the East German buildup by economic countermeasures. We should remember, however, that while this question may become important in a sharpened conflict in the near future, it deals with a narrow aspect of the conflict. Whatever temporary damage may be inflicted by economic countermeasures on East Germany, and indirectly on the Soviet Union, the challenge of the East German buildup to the West calls for broader measures, over time. Moreover, in an acute crisis, economic countermeasures alone will not force East Germany to its knees and will not compel the Soviet Union to desist from its pressure on the West. Their effect will depend in part on other developments.

The economic dependence of East Germany, analyzed on the following pages consists of a dependence on Western goods. Dependence on Western services

¹ H. Speier, W. P. Davison, and L. Gourev, The German Crisis: A Field Report, January-February, 1959, The RAND Corporation Research Memorandum RM-2340 (ASTIA Document No. AD 212201), March 20, 1959.

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is briefly touched upon. Countermeasures in the military and political field, encouragement of greater population flight from the area, and so forth, are not discussed.

II. EAST GERMAN IMPORT STRUCTURE

WESTERN EUROPE AND SOVIET BLOC SHARES

The Soviet Union dominates the external trade of East Germany. According to East German statistics for 1958, 45 per cent of East Germany's exports went to the USSR, and 41 per cent of her imports came from there. Trade with other Sino-Soviet Bloc countries added 32 per cent to exports and 30 per cent to imports, thus bringing the total share of the Bloc in East German exports to 77 per cent, in imports to 71 per cent (see Table 1). Since 1956, the share of the Bloc in total East German trade-turnover has stood at 74 per cent.

By comparison, East Germany's trade with the Free World is small. In 1958, only 7 per cent of her exports went to Western European countries other than West Germany and 12 per cent of her imports came from these countries. West Germany accounted for an additional 11 per cent of both exports and imports, and the remainder of the Free World for 5 per cent of exports and 6 per cent of imports.¹

This structure reflects the strong ties of the East German economy to the Soviet Union and Bloc, which receive priority in all dispositions over East German foreign trade. The importance of this trade to the Soviet Union is indicated by the fact that East Germany is her largest trade partner, and

¹Before World War II and the division of Germany, the area now under Soviet-East German control had 69 per cent of its total external trade-turnover with what is now West Germany (plus Berlin), and 15 per cent with foreign countries not now under communist control. ECE, Economic Bulletin for Europe, November 1956, p. 75.

the second largest (after the Soviet Union) of China and other Bloc countries.¹
The East German economy is the main manufacturing auxiliary of the Soviet Union, and a fair amount of Soviet exports to East Germany (and some imports on Soviet account) are more or less directly tied to East German exports of manufactures to the Soviet Union.

Table 1

EAST GERMAN FOREIGN TRADE BY AREA: 1958

Area	East German Trade	
	Exports (%)	Imports (%)
USSR	45	41
Other Sino-Soviet Bloc.....	32	30
Total Sino-Soviet Bloc.....	77	71
Western Europe (excluding West Germany).....	7	12
West Germany.....	11	11
Total Western Europe.....	18	23
Other Free World.....	5	6
Grand Total.....	100	100
Grand Total in Billion Rubles.....	7.6	6.7

SOURCE: Vierteljahrshefte zur Statistik der Deutschen Demokratischen Republik, No. 1, 1959, p. 20.

¹In 1957, East Germany accounted for 6.5 billion rubles of Soviet foreign trade turnover, out of a total of 33.3 billion. Twenty per cent of Soviet exports went to East Germany, 19 per cent of Soviet imports came from there. East Germany then supplied 43 per cent of Soviet imports of machinery and 32 per cent of Soviet imports of chemicals. (Vneshniaia Torgovlia SSSR za 1957 god, Moscow, 1958.)

MACHINERY AND CHEMICALS

The dominant share of the Soviet Union and the Bloc in total East German trade does not, however, prevent a substantial reliance of East Germany on Western imports in certain categories of goods. West Germany and Western Europe supply a large part of East Germany's imports of machinery and chemical products, and also a substantial share of her imports of other manufactured goods. The East Germans do not publish breakdowns of their foreign trade by country and commodity category, but the statistics of the trade of Western countries with Soviet Bloc countries, compiled by the United States Department of Commerce, and the recently published trade statistics of the Soviet Union, make this kind of detail available. These sources have been used to compare East German imports from Western Europe and the Soviet Union in major categories of goods.¹ (See Table 2.)

While total East German imports from Western Europe are less than one-half of the value of total imports from the Soviet Union, East German imports of chemicals and machinery from Western Europe are three to four times larger than from the Soviet Union. This does not necessarily mean that East Germany receives more than half its chemical and machinery imports from Western Europe; significant imports of these kinds come from other Bloc countries, notably Czechoslovakia and Hungary. But even in the absence of up-to-date statistics for these sources, it is certain that a large share of East Germany's imports of machinery and chemicals come from Western Europe, much more than the average share of Western European goods in total East German

¹Data on the exports of other Bloc countries to East Germany in 1957 are not yet available in sufficient detail.

Table 2

EAST GERMAN IMPORTS FROM WESTERN EUROPE AND USSR,
BY COMMODITY CATEGORY: 1957

S.I.T.C. Commodity Grouping	East German Imports (in \$ million)		Imports from Western Europe as Comparative Percentage of Those from USSR
	From Western Europe ^a	From USSR ^b	
Food, Beverages, Tobacco	95	235	40
Crude Materials, Inedible	55	293	19
Chemicals	29	8	362
Machinery and Transportation Equipment	44	15	293
Manufactured Goods	129	185	70
Total	352	736	48

^aSOURCE: International Economic Analysis Division, United States Department of Commerce. Data pertain to exports of Western European countries, listed in greater detail in Table 3. For West Germany: Statistisches Bundesamt. Statistische Berichte; Der Warenverkehr im Interzonenhandel zwischen den Währungsgebieten der DM-West und der DM-Ost im Jahre 1958, Wiesbaden, April 17, 1959.

^bSOURCE: Vneshniaia Torgovlia SSR za 1957 god, Moscow, 1958. Ruble amounts have been converted into U. S. dollars at the rate of 4:1.

imports (23 per cent). This was certainly true in 1955¹. In that year, all non-Bloc countries together accounted for 29 per cent of East German total imports. But they accounted for 48 per cent of imports of chemicals, 75 per cent of general machinery, 78 per cent of heavy machinery, 83 per cent of electro-technical products and 84 per cent of precision-mechanical and optical products. The great bulk of these imports came from Western Europe. The relative importance of this trade to East Germany -- relative to imports of the same type from Bloc sources -- may have diminished since 1955, but it is still likely to be large. In relation to total East German imports, however, imports of this type were small, less than 9 per cent in 1955, and probably not much larger today. Foodstuffs and raw materials dominate the total import bill.

Considering now the imports of machinery and chemicals from individual Western countries, one can see from Table 3 that the Federal Republic (including Berlin) is by far the most important Western source. In 1957 it supplied 39 million dollars of the first category and 21 million dollars of the second. Of the other Western countries, only Austria and Switzerland showed machinery exports to East Germany of more than 1 million dollars in 1957, and only the Netherlands, Switzerland and Belgium showed exports of chemicals in excess of that amount. These two categories of East German

¹This is the only year in which the statistical yearbook of East Germany broke down foreign trade by trading area and commodity category. The trading areas distinguished are "democratic world market" (then including Yugoslavia), "capitalistic countries" and "intra-German trade". Statistisches Jahrbuch der Deutschen Demokratischen Republik, (henceforth called Statistisches Jahrbuch), 1955, pp 243ff.

Table 3
EAST GERMAN IMPORTS BY COMMODITY CATEGORY AND COUNTRY: 1957
(in \$ thousand)

Country	Food, Beverages, Tobacco	Crude Materials, Inedible	Chemicals	Machinery and Transportation Equipment	Other Manufactured Goods	Total
Austria	91	571	773	1,705	13,959	17,099
Belgium-Luxembourg	52	1,264	1,217	130	2,003	4,666
Denmark	6,936	1,840	35	90	173	9,074
Finland	3,112	7,764	6	83	5,065	16,030
France	1,390	864	894	348	3,877	7,373
Greece	2,615	289	-	-	6	2,910
Iceland	2,573	-	-	-	1	2,574
Italy	3,286	-	279	29	282	3,876
Netherlands ^a	2,983	6,538	1,806	62	4,007	15,396
Norway	5,474	2,034	93	24	1,135	8,760
Portugal	-	81	-	-	16	97
Sweden	8,688	5,073	653	697	4,767	19,878
Switzerland	74	123	1,505	1,389	2,000	5,091
Turkey	19,448	94	-	-	35	19,577
United Kingdom	204	2,311	356	560	4,519	7,950
Yugoslavia	3,814	2,678	502	65	3,345	10,404
Total Western Europe, Excl. West Germany	60,740	31,524	8,119	5,182	45,190	150,755
West Germany ^b	34,707	23,200	21,255	38,900	83,356	201,418
Total Western Europe	95,447	54,724	29,374	44,082	128,546	352,173
USSR	234,643	293,243	7,581	14,974	185,419	735,859

SOURCE: See Table 2. The values for all Western European countries and the USSR are f.o.b. frontier of the exporting country. Shipments from West Germany are counted variably f.o.b. point of origin, f.o.b. frontier, or c.i.f., depending on the individual deal between the East German state import agency and the private West German supplier; the trade data reflect the purchase sum reported on the Warenbelegitschein. As a rule, data cover "domestic and nationalized" goods; only the United Kingdom specifically includes re-exports.

^aExport data for the Netherlands are admittedly incomplete.

^bIncluding West Berlin.

imports, in which the West's share is large, also reveal a preponderance of West German supplies over other Western European sources. To a somewhat lesser degree, this is also true for East German imports of other manufactured goods.

METALS

East Germany is very dependent on imports of metals. According to West German estimates, in 1958 she imported 33 per cent of her consumption of rolled steel,¹ and 37, 87, 50, 92 and 30 per cent respectively of her copper, zinc, tin, nickel and aluminum.² Her non-ferrous metal imports come almost entirely from Bloc sources, but in the case of rolled and cast steel the West makes a significant contribution. In 1957, this contribution amounted to at least 16 per cent of total imports from West Germany alone, and at least 23 per cent from all Western Europe (see Table 4). For cold-rolled and drawn steel alone, the contribution of West Germany was much greater: in 1957, West Germany supplied 10.6 million dollars of these steels, compared to 0.2 million dollars of imports from the Soviet Union.³ In view of the importance of cold-finished

¹ In addition to 24 per cent of her consumption of pig iron and 69 per cent of her consumption of iron ore. Deutsches Institut für Wirtschaftsforschung Wochenbericht, May 8, 1959, p. 77.

² Counting imports of metal only. In the case of aluminum, allowances for imported concentrates would raise the import dependence from 30 to 87 per cent. Ibid., September 12, 1958, p. 146.

³ Deliveries from West Germany consisted of about 2.1 million dollars of cold-rolled bars, 3.5 million of sheet and 5 million of seamless pipe. (Der Warenverkehr im Interzonenhandel...im Jahre 1957). In 1958, the first and third categories increased, and the second declined; the total rose to 11.2 million dollars (same source for 1958). In addition to the mentioned products, West Germany supplied in 1957 wire and wire products (mostly cold finished) valued at 3.6 million dollars compared to Soviet shipments to East Germany of about 500,000 dollars.

Table 4

EAST GERMAN STEEL IMPORTS, 1957

From	Thousand Metric Tons
West Germany	152 ^a
Austria	21 ^b
France	16 ^b
Other Western Europe	21 ^b
Total, Western Europe	210
Soviet Union	658 ^c
Poland and Czechoslovakia	63 ^d
Total	931 ^e

^aInterzonal deliveries in commodity categories 27 (excluding 2711), 29 and 30. Statistisches Bundesamt, Der Warenverkehr im Interzonenhandel... im Jahre 1957, Wiesbaden, March 26, 1958, p. 11.

^bDepartment of Commerce compilations. Indicated quantities probably understates trade. See footnotes to Tables 2 and 3.

^cVneshnaya Torgovlia SSR za 1957 god, commodity categories 264-266, 268.

^dObtained as residual. Figure probably overstates imports from satellites.

^eStatistisches Jahrbuch, 1957, p. 519. Rolled steel imports of East Germany.

steel for products of fine tolerances, high finish and high tensile strength, one must assume that various metal fabricating industries depend on West German supplies of tubes, sheets, bars and wire for the production of automotive sheet, chemical equipment, precision instruments, etc.¹ East Germany is seeking to overcome her dependence on the West in these fields by increasing her own production; but since 1955 her total imports of cold-finished products have risen about as much as her production. In the case of seamless pipe, for example, imports were reported to have risen from 55,000 to 66,000 tons (1955 to 1957) production from 62,000 to 76,000 tons.² In the near future, a stoppage of steel imports from West Germany, particularly of cold-finished products, might have a significant impact on several East German industries or require much larger Soviet Bloc shipments than heretofore, on short notice.

SIZE OF IMPORTS FROM WESTERN EUROPE

It is possible that East German imports from Western Europe, in some categories or all, were actually somewhat larger than the Department of Commerce compilations indicate. East German aggregate import statistics show notably larger imports from the United Kingdom and also larger imports from Belgium-Luxembourg, France, Italy and the Netherlands than the exports shown from these countries (see Table 5). In part, this may reflect trans-shipment of West German goods through some of these countries;³ in part it

¹ West German supplies of steel for crankshafts are also described as essential by some experts. -- See also below, pp. 35ff.

² Statistisches Jahrbuch 1957, pp. 294 and 519.

³ Such trans-shipments are not included in West German inter-zonal trade statistics. In 1958, the West German authorities approved exports of about 6 million dollars to third countries, with East Germany as the final destination. Some roundabout shipments may have proceeded without approval. The excess of East German imports over the various national exports to East Germany, in 1957, amounted to 25 million dollars for the United Kingdom, 9 million for France, 5 million for the Netherlands and less for the others. (See Table 5.)

Table 5

WEST EUROPEAN EXPORTS TO EAST GERMANY AND EAST GERMAN IMPORTS, 1957
(In \$ thousand, f.o.b. Frontier of Exporting Country)

Country	West European Exports		East German Imports ^b
	U.S. Dept. of Commerce	ECE ^a	
Austria	17,099	17,000	14,205
Belgium-Luxembourg	4,666	4,700	8,304
Denmark	9,074	8,700	9,905
Finland	16,030	15,800	16,058
France	7,373	7,400	16,760
Greece	2,910	2,900	2,967
Iceland	2,574	2,700	2,823
Italy	3,876	3,800	5,070
Netherlands	15,396 ^c	15,300	20,355
Norway	8,760	8,700	8,186
Portugal	97	N.A.	N.A.
Sweden	19,878	20,200	14,405
Switzerland	5,091	5,100	N.A.
Turkey	19,577	19,600	16,516
United Kingdom	7,950 ^d	4,000	33,086
Yugoslavia	10,404	10,400	6,055
Total Western Europe (Excl. West Germany)	150,755	146,300	178,317
West Germany	201,418	—	183,875
Total Western Europe	352,173	—	362,192

^aEconomic Bulletin for Europe, Vol. 10, No. 2, Geneva, 1958. This tabulation presumably came from the same national sources as that of the Department of Commerce.

^bStatistisches Jahrbuch, 1957, p. 515. Ruble values converted at the official rate of 4:1.

^cData said to be incomplete.

^dRe-exports said to have been included.

may reflect re-exports of goods coming from other (overseas) sources, but this should not apply to the large discrepancy for the United Kingdom since the British export data supposedly include re-exports; there may also be other reasons. On the other hand, East Germany's reported imports from Austria, Sweden and Turkey are much smaller than Western compilations of exports from these sources to East Germany.¹ The East German data do not acknowledge any imports from Switzerland but Switzerland reports exports of some size.² East German receipts from West Germany, finally, were shown as 18 million dollars less than West German deliveries to East Germany, which may be the result of an East German understatement.³ On balance, it seems likely that East German imports from Western Europe as a whole were larger in 1957 than Western European sources show, and perhaps even somewhat larger than the East German statistics acknowledge.

¹One may wonder whether some of the exports were on the Soviet's account, on behalf of Soviet forces or agencies in East Germany.

²There is no bilateral trade and clearing agreement between East Germany and Switzerland. Finland is the only European country outside the Bloc with which East Germany has a government-to-government trade and clearing agreement. With other European countries it has "unofficial" agreements which have been concluded between trading organizations of a private but sometimes publicly supervised character in the West and a "front" of the East German foreign trade monopoly called the "Chamber for Foreign Trade" in East Berlin. The interzonal trade agreement with West Germany is concluded by a "trustee for interzonal trade" who represents in fact the Bonn Ministry of Economics and signs "for the currency areas of the D-Mark (West)", and East German officials of the Ministry of Foreign and Intra-German Trade, who sign "for the currency areas of the D-Mark (East)".

³Since this amount corresponds roughly to the West German deliveries of coal (more recently also of steel), made free of charge for the benefit of the protestant church in East Germany, one may wonder whether this unrequited import was excluded from the East German import statistics. It is included in the West German data on deliveries. A similar discrepancy appeared in 1956, only an insignificant one in 1955. The flow of interzonal trade in the opposite (East to West) direction has been reported with only insignificant discrepancies between the two sources in 1955 and 1956. In 1957, West Germany reported receipts 10 million dollars smaller than East German deliveries.

III. ESSENTIALITY OF IMPORTS FROM WESTERN EUROPE

How essential are imports from Western Europe to the functioning of the East German economy? How sensitive is that economy to the availability of these imports from the West? The present Section will discuss these questions in a general way; the following two Sections will deal with more specific situations.

The availability in question is the short-run availability, i.e., the continuity over a number of months of the current and expected flow of goods from Western sources, on the usual terms. Undoubtedly, the performance of the East German economy "depends" on these flows. If they were interrupted, supply gaps would appear, certain production programs could not be met, and certain deliveries to local and foreign users would be delayed.

The following general discussion will throw some light on various aspects of the essentiality question; but it will not arrive at very specific answers to such sub-questions as these: What lines of production would be interrupted? What kind of supply gaps would appear? What kinds of programs would not be met? What is the significance of these production lines and programs to current designs for the East German economy? What adaptation could be made, in that economy or in the Bloc, to counter the effects of the disruption of the current trade flows with Western Europe; and what would be the cost of these adaptations, to East Germany and to the Soviet Union? Some general answers, however, will be suggested, and some alternatives pointed out.

FULL COMMITMENT OF EAST GERMAN RESOURCES

It is fairly clear that East German resources are fully committed under existing programs. Industrial production in the area is destined to rise

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at a rate of about 11 per cent a year (1959), and to double over the time-span from 1957 to 1965. Great investment projects are under way, ranging from such specific tasks as the construction of the lignite combine, "Schwarze Pumpe", the oil refinery at Schwedt which is to be fed by a Soviet pipe-line through Poland, and the harbors and shipyards of Rostock and Wismar, to programs for the further development of the chemical and plastics industries, the expansion of the electrical industry, the modernization of equipment in various branches of production and the public services, and the expansion of sundry other industries. Total investment, in 1959, is planned to be 20 per cent higher than in 1958.¹ In addition, the SED has set itself the task of raising per-capita consumption of all important consumer goods² to the West German level "by 1961."

The working population available for these production tasks is stagnant (new entries into the labor force are now especially low), unemployed reserves are insignificant, and the regime is making considerable efforts to cope with the shortage of labor by drawing students and youngsters of school age into production, by lengthening the effective work week through arrangements for "extra production" of consumer goods³ and extra time for public works

¹ Economic Plan for 1959. Gesetzblatt, I, January 31, 1959. It is difficult to say what this means in terms of GNP. For 1956, Stolper estimated East German gross fixed investment at about 26 per cent of GNP ("material production") National Accounting in East Germany, Cambridge, Mass., June 1959, mimeo., p. 73.) For 1959, the percentage should be higher.

² Ulbricht on the 5th Party Congress of the SED. Neues Deutschland, July 11, 1958.

³ Two "movements" to boost extra production are heavily propagandized: the production of "additional goods for mass consumption" and that of additional goods for export. Both seek to utilize workers' spare time and plant reserves of materials.

("reconstruction hours"), by obstructing the flight of people of working age from the territory, and by mechanizing and standardizing production. The continual drives to speed up production, to economize on materials, and to shorten delivery times tend to keep inventories of materials and products low. "State reserves" of basic foodstuffs exist, but the reserves of goods in enterprises and households are probably small. The recurrent complaints of domestic and foreign customers over tardy deliveries often point to inventory shortages and other strains on the economic apparatus.

These circumstances make the East German economy sensitive to a withholding of imports. Declines in imports of consumer goods are likely to cause rapid declines in supplies in the stores; and curtailed deliveries of imported materials, semi-manufactures and machinery are likely to cause shortages in the production system. As a rule, domestic production cannot be increased on short notice, nor can stocks be drawn on for many weeks before being depleted; therefore the first impact of a Western embargo would probably be felt fairly widely in the branches and stages of production. Basic foodstuffs and many basic materials would remain available, of course, since imports from the Soviet Union and other sources must be expected to continue.

POSSIBILITIES OF SUBSTITUTION

Faced with an embargo of Western European imports, East Germany could look to various possibilities of substitution. In the first place, it could seek to substitute, for the lacking imports, commodities originally produced for export to the West. Within limits, this is undoubtedly possible. Some of the machinery and textile exports could probably be diverted to internal use, although the specific features of the products would often restrict

their utility. Lignite and potash, however, which are exported to the West in large amounts, would find very little internal use. On the whole, this kind of substitution does not seem to offer much promise.

Substitute imports from the Soviet Union and the Bloc would be more important. In the long run, the Soviet Bloc could undoubtedly make quite substantial substitutions; but in the short run they would often find it difficult to do so, partly because of the way in which East German foreign trade is planned. It appears that East Germany normally exhausts import possibilities from the Bloc before considering imports from Western Europe. In the fall of each year, the expected import requirements of East German enterprises are consolidated and submitted to Soviet authorities. Only after Soviet commitments have been obtained does the East German foreign trade monopoly turn to suppliers in Western Europe with orders. Trade with the USSR is clearly the primary element in East Germany's foreign trade, and with the other Satellites the secondary one. Trade with the West is residual in that it revolves around import commodities, quantities or qualities, that are unobtainable in the preferred trading area.

The interesting question is what "unobtainable" means. Obtainability seems to have little to do with prices. Price differences between Bloc and non-Bloc sources seem to be virtually irrelevant in the allocation of imports to these two market areas. Quantities of intra-Bloc trade are usually determined before prices are even specified. Offers of higher prices by East Germany would be no key at all to substitute imports from the Bloc.

The "unobtainability" of goods in the Bloc may mean one of three things: (1) The goods are not made there at all. This category covers products made in DIN formats (a German standardization system used in East and West Germany); spare parts and replacements for German-made machinery; special products

involving techniques, processes, qualities of materials, etc. that are available only from Western suppliers. This category may not be of great quantitative importance in the overall import picture, but items in it could cause bottlenecks. (2) The goods are made in the Bloc, but their availability to East Germany is restricted by other uses that have presumably higher priority. This category covers such items as cold-rolled steel, seamless steel tubes, bituminous coal and coke, coal-tar dyes and others. It is probably of much greater quantitative importance than the first. (3) The goods are made in the Bloc and their supply is not necessarily pre-empted by higher-priority uses; but the East German demand appears unexpectedly and the goods cannot be made available on short order. Under ordinary circumstances, this category may be more important quantitatively than the first; it overlaps with the second. The tendency to fix trade flows within the Bloc over periods of one to three years in advance, makes adaptation of imports to changing production or consumption requirements difficult. On the other hand, the greater diversity, stocks and adaptability of the Western market economies enable the East German procurement agencies to cover unexpected requirements relatively easily in the West. Production difficulties in East German industries or lags in Bloc imports seem to give rise fairly often to such sudden import needs; and inspection of interzonal import records brings out numerous instances of rapid rises and falls from year to year, in narrowly defined categories.

Goods of the second and third category could be made available to East Germany by a more or less drastic shift in their allocation by the Soviet Union. If the Soviet rulers decided to go all-out in the substitution of Soviet and Satellite goods for Western imports withheld from East Germany,

the major part of the East German import gap could probably be filled quickly enough to prevent serious disruption in the East Germany economy. The price of this policy, however, would be a disruption of other economic activities in the Soviet Union and the Bloc. The Soviet Union could assume the major part of the burden that a Western embargo would impose on East Germany by furnishing substitutes for Western imports, and by foregoing (delaying) certain imports from East Germany.

If the Soviets gave only limited relief, the embargo would hit East Germany with greater force and would then jeopardize the investment or consumption programs of the SED. The impact of the embargo on East Germany and on the various sections of its economy therefore depends strongly on Soviet willingness to assume the direct burden of relief.

PECULIAR ADVANTAGES OF TRADE WITH WEST GERMANY

The substitution of Soviet trade for Western trade would probably have some unfavorable effects on the terms of East Germany's foreign trade. Up to 1957, at least, East Germany seems to have paid more for a variety of Soviet imports than she would have had to pay for the same imports from Western sources.¹ The Soviet Union could of course free East Germany from this handicap, which seems inconsistent anyway with her efforts to bolster

¹ H. Mendershausen, Terms of Trade Between the Soviet Union and Smaller Communist Countries, 1955 to 1957, The RAND Corporation, Research Memorandum RM-2305 (ASTIA Document No. AD 210497), January 18, 1959. For a sample of import items, which constituted 64 per cent of East German imports from the Soviet Union in 1957, East Germany would have had to pay 10 per cent less if it had obtained these imports from West Germany's import sources on the terms then applying to West German imports.

the East German economy. More importantly, East Germany would have to forego some advantages that are peculiar to its current trade with West Germany. Five kinds of advantages may be counted.

(1) West Germany, and to a smaller extent other Western countries, offer the only market where East Germany can trade its lignite (Braunkohle) for steel, bituminous coal, and other products. In 1957, East Germany could dispose of 44 million dollars worth of lignite in West Germany (23 per cent of the total value of East German exports to West Germany) and another 10 million dollars in Austria, Denmark, and other countries of Western Europe.¹ In 1958, deliveries to West Germany rose to 55 million dollars. Of late, East Germany has succeeded in committing West Germany to further increases of its imports of lignite under supplementary agreements on inter-zonal trade, and lignite stocks are piling up in West Germany. Lignite exports to West Germany rest mainly on the demand for briquettes for household heating in the Federal Republic and West Berlin. This demand is gradually declining because of the introduction of more efficient oil heating. The decline could have been greater, had conversion been encouraged by public authorities. A time of more acute conflict might stimulate a more determined conversion effort that would make West Berlin and West Germany less dependent on East German lignite.

It is unlikely that Bloc countries would easily develop markets for East Germany's inferior coal. In East Germany itself, additional amounts of lignite could possibly be used in briquette form or otherwise; but there

¹ East Germany then exported 9 per cent of its output of lignite briquettes as well as some other lignite products. Statistisches Jahrbuch, 1957, pp. 294 and 515.

is no shortage of the stuff at present and additional supplies might be of little value.

(2) West Germany provides other unique facilities for East German trade. It accepts, free of customs duties, synthetic motor fuel, textiles and other goods that could probably not be sold as advantageously in other Western countries, and perhaps not even in the Bloc.¹ It pays the domestic West German market prices for imports of wheat from East Germany, which at present lie about 70 per cent above world market prices. This enables East Germany to make considerable profits on the resale of Soviet wheat, even if the Soviet Union should continue to charge somewhat more than world market prices, as she did up to 1957.²

(3) The interzonal trade system with West Germany permits East Germany to import hides and skins, frozen meat, coffee, cocoa, tropical woods and other products of overseas countries through West German intermediaries without expenditure of foreign exchange. The bulk of these goods probably came directly from producer countries. East Germany has "unofficial" trade agreements with Brazil, Argentina, Columbia and Uruguay, where a large part of these imports originate. Because of difficulties, however, in selling the necessary exports in these countries and the risk of having to make net foreign exchange payments to them, the East Germans seek to maximize indirect imports of these commodities through West Germany. Together with iron and steel and machinery these commodities are still sought most eagerly

¹In 1957, the Federal Republic, excluding West Berlin, took 29 million dollars worth of gasoline and diesel fuel and 10 million dollars of clothing, in its total interzonal imports of 158 million dollars. All East German goods enter West Germany free of customs duties.

²See Mandershausen, op cit., p. 39.

by the East Germans in interzonal trade negotiations, and import possibilities are fully utilized.

(4) The interzonal trade system provides relatively favorable credit facilities for East Germany. The limit of basic swing credits in interzonal trade -- now 36 million dollars -- amounts to a higher percentage of trade turnover than swing limits in bilateral clearing agreements with other West European countries; e.g., 9 per cent in 1958 compared to 6 per cent for the East German clearing with Norway. In addition to the basic swing limits, which are at present (June, 1959) 83 per cent utilized in favor of East Germany, West Germany agreed in November, 1958 to establish a supplementary interzonal trade account of 17 million dollars, with a swing of 12 million, for additional exchanges of Eastern lignite briquettes and wheat for Ruhr coal. By June, 1959, this supplementary account (Special Account A) showed a West German credit balance of about 10 million dollars. Furthermore, in March, 1959, West Germany permitted East Germany to receive 21 million dollars of iron and steel and some other products in advance of 1960 shipments and to pay for them with lignite, wheat and diesel oil deliveries in 1960. Thus, thanks largely to sales pressure coming from some West German producers, the East Germans have succeeded lately in widening the credit limits in interzonal trade.

(5) Some general advantages to East Germany of trading with West Germany have already been noted, such as the uniformity of manufacturing standards and the spare parts situation. In addition, personal connections, especially between managerial personnel of formerly integrated all-German concerns, greatly facilitate exchange of goods, licensing agreements, and cooperation on export projects (West German concerns sometimes make sizable contributions to East German projects for factory export and installation in third countries).

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These economic contacts also provides opportunities for political infiltration, of which East Germany is availing itself quite diligently. The East German regime has established various bridgeheads in West Germany which incite West German sales interests to press for a softening of governmental bargains with the East, e.g. the "Committee to Further Intra-German Trade",¹ installed East German collaborators in the management of West German firms,¹ and infiltrated works councils in a number of plants.

The loss of these advantages would not be fatal to the East German economy, but would add to the impact of an embargo.

WESTERN EUROPEAN IMPORTS -- THE GENERAL PICTURE

Summing up the discussion of the essentiality of Western European imports to the East German economy, we may say (1) that the full commitment of local resources to an ambitious and politically much emphasized expansion program tends to make the economy quite sensitive to the continuity of all import flows; (2) that substitution possibilities for Western European imports, over a span of a few months, would be limited by rigidities in the local economy and "unobtainability" of substitutes from the Bloc, but that the limits could be widened with time; (3) that the incidence of import shortages in East Germany might be fairly widespread in the local economy because of its varied commitments; (4) that some effects could be passed

¹An interesting example is the appointment of Herr Brans as representative of the Mannesmann concern for sales to East Germany, following efforts of competing concerns to enlarge their sales in this direction. Brans is one of the leading business agents of the East German foreign trade organization in West Berlin.

on to the Soviet Union through the slowing down of East German exports and through such re-allocation of Soviet resources as might be made in the short run to offset the withholding of Western European goods; (5) that Soviet policy could determine to some degree how the burden should be distributed among the Soviet Union, East Germany and perhaps other Bloc members; and (6) that East Germany would lose some advantages peculiar to interzonal trade, if it had to forego trade with West Germany temporarily.

The following section will deal with more specific import categories and possible bottlenecks.

IV. SIGNIFICANCE OF CHEMICAL IMPORTS

The relatively high share of Western sources in East Germany's total imports of chemicals consists chiefly of three kinds of goods: fertilizers, dyes and plastic materials.

Phosphate fertilizers constitute the largest single item. The East Zone has to import its entire consumption. As a result of under application of phosphates in the past, the yields of various agricultural products have remained low, and import demand is therefore still quite urgent. In terms of value (suitable data on quantity are not available) East Germany imported about 12 million dollars' worth of phosphates from the Soviet Union and the West in 1957. About half of that amount came from the Soviet Union (mostly in the form of apatite concentrates), 38 per cent from West Germany, and 12 per cent from other Western European countries (Belgium, France etc.).

While phosphate fertilizers made up nearly 80 per cent of chemical imports from the Soviet Union, they amounted to only 20 per cent of the chemical imports from Western countries (including West Germany) in 1957. Other chemicals, such as dyes, plastics, drugs, borax, etc., contributed the dominant share (22½ out of 29½ million dollars) of East German chemical imports from Free Europe. The bulk of these, 17 million dollars, came from West Germany. In 1957, coal-tar dyes were the largest item in this group of West German exports to East Germany (6 million), but in 1958 they dropped to 3 million. Plastic materials, on the other hand, rose from 3 million to 4 million dollars in 1958, and pharmaceutical products from 2 to 3 million. Synthetic fibers showed a sharp drop from 1 million dollars to \$200,000.¹

¹ Statistisches Bundesamt, Der Warenverkehr im Interzonenhandel...im Jahre 1958, April 17, 1959.

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The large section of Germany's chemical industry that the Soviet Zone inherited has more than recovered from destruction and dismantling. It has expanded in the direction of certain finished products, e.g., coal-tar dyes, and somewhat reduced its dependence on West German, Italian and Swiss materials. In a number of instances, however, intermediate products are still imported from West Germany; for example, a former, now expropriated, Schering plant in East Berlin buys hydro-cortisone from the Schering Plant in West Berlin for cortisone manufacture.

The principal basis for the East German chemical industry is lignite, but plans are now being carried out to develop a petrochemical industry based on Soviet oil. Plastics production has traditionally been important in the area; it is now slated for considerable expansion. The development programs for the chemical industry are reflected in a doubling of inter-sonal shipments of chemical apparatus and related machinery to East Germany from 1957 to 1958,¹ and continued intense demand for this kind of equipment.

East German exports of chemicals to the Soviet Union consist primarily of movie film, plastics materials and pesticides. Their total amounted to about 22 million dollars (89 million rubles) in 1956, 14 million dollars in 1957.

The incidence of Western chemical-goods imports in the East German economy is fairly broad. It can be found in agriculture and the various domestic industries, including the chemical industry itself. A withholding of such imports would probably cause some immediate shortages and bottlenecks, and might affect exports to the Soviet Union.

¹Ibid. Such shipments rose from 3½ to 6 million dollars in 7 pertinent categories of machinery, Codes 3231-3235, 3251 and 3252, of the German industrial commodity classification.

V. MACHINERY INDUSTRY AND IMPORTS

Machinery imports from the West serve in part to equip East German production facilities, and in part to outfit major East German export objects (factories, ships, etc.). In both ways, these imports round out the production program of the highly developed East German metal fabricating industries, and the import program from Bloc countries.

The metal fabricating industries of East Germany are of considerable importance. In 1956, they accounted for 29 per cent of gross industrial production,¹ but they furnished about one-half of East Germany's total exports.² The metal fabricating industries exported 24 per cent of their total 1956 output, as against an export percentage of 12 for East German industry as a whole.³

The machinery-building divisions of this industry are the mainstay of East German export trade. Heavy and general machinery, vehicles, and ships bulk large in exports to the Soviet Union and the Bloc countries; precision mechanics and optics are directed somewhat more to Western and other non-Bloc countries, but also figure significantly in exports to Bloc countries.

¹The several subdivisions contributed to that percentage as follows: vehicle building (6.5), electrical machinery (5.9), heavy machinery building (5.6), general machinery building (4.5), metal goods (2.0), precision mechanics and optics (1.8), shipbuilding (1.7) and foundries (1.2). Statistisches Jahrbuch 1957, chart facing p. 312.

²In 1957, the metal fabricating industries furnished 56.3 per cent of all East German exports to Bloc countries, 61.8 per cent to non-Bloc Asia, 25.2 per cent to Free Europe (excluding West Germany) and 11.0 per cent to West Germany. The percentage in aggregate exports was given as 48. (Vierteljahrshefte zur Statistik 1958, No. 4, p. 128.) A later source put the percentage in aggregate exports for 1957 at 52. (Der Aussenhandel, No. 4/5, 1959, p. 17.

³Der Aussenhandel, No. 23, 1958, p. 807. See also Günther Kohlmei, "Spaltungsdisproportionen und Aussenhandel" Wirtschaftswissenschaft, January/February 1958, pp. 70-71.

The various machinery industries cooperate in the construction of complete factory systems to be erected in Bloc countries and under-developed countries, ranging from cement and sugar mills to power plants, chemical and textile plants, dairies, and other installations. In 1957, the machinery industries alone accounted for 44 per cent of East German total exports.¹

These industries are also the source of equipment for East German industry itself, and their contribution to the local economy has grown of late, thanks to the decision of the Soviet Union to develop the industrial capabilities of area. It has grown at least in step with the expansion of output, but probably not faster, i.e., not at the expense of exports. It is true that since 1955, the growth of exports of the metal fabricating industries has lagged behind that of exports in general, while the total output of the metal fabricating industries has grown as fast as the output of all industries. (See Table 6.) But when allowance is made for the statistical distortion resulting from the introduction of uranium exports into the export statistics in 1957, the discrepancy in the growth rates probably vanishes. Rising output of the metal fabricating industries, however, permitted more replacement and modernization of industrial equipment, new plant construction and development of the merchant marine. The electrical machinery industry, in particular the branch producing measuring and regulating control systems, seems to have been directed increasingly toward providing inputs for other East German industries since 1957.²

¹Der Aussenhandel, No. 8, 1959, p. 9.

²Exports of electrical industry products in 1957 were only 9 per cent above 1955, compared to an average for the metal fabricating industries of 13 per cent. Ibid., No. 4/5, 1958, p. 11.

Table 6

COMPARATIVE GROWTH RATES OF METAL FABRICATING INDUSTRIES,
ALL INDUSTRIES, AND EXPORTS IN EAST GERMANY
1955-1958

Year	Index of Industrial Production ^a		Value of Exports ^b	
	Metal Fabricating Industries	All Industries	Metal Fabricating Industries	All Industries
1955	100	100	100	100
1956	108	106	104	110
1957	112	114	113	112
1958	128	127	128	118

^aComputed from Statistisches Jahrbuch, 1957, p. 280, Vierteljahrshefte zur Statistik, No. 4, 1958, p. 127 and No. 1, 1959, Appendix (for 1957 and 1958). The last-mentioned source indicates a large downward revision of the 1957 gross production value of the metal fabricating industries and upward revisions in other industries, leaving the all-industry total for 1957 unchanged.

^bComputed from Statistisches Jahrbuch, 1957, p. 514, and Der Aussenhandel, 1959, No. 4/5, p. 17.

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Some of these industries are important exporters of course. The machine tool industry, for example, which contributes about two-thirds of the exports of heavy machinery and which shows relative export increases from 1955 to 1957 much greater than those of the metal fabricating industries as a whole (perhaps even greater than total exports), absorbs an increasing amount of electrical equipment. So do the exports of complete factory installations. The expansion of East Germany's industrial plant is increasing the area's ability to furnish all the components of complex industrial exports. This tends to lower its import needs for certain components.

Any economic system preoccupied with domestic industrialization as well as a large machinery export program is likely to have import requirements for machinery. The East German system is especially subject to this general rule because of its structural and dynamic peculiarities; its import needs are therefore likely to manifest themselves with particular urgency. In the first place, the domestic machinery industry still suffers from some disproportions in capacities that resulted from Soviet dismantling and the division of the country. It has, for instance, a relatively limited capacity for electrical machine building, which makes itself felt in various production lines requiring electrical components. The automobile industry has not yet matched its prewar output but seems to have persistent difficulties with electrical accessories. Secondly, the machinery industry is driven forward by the regime and saddled with tasks that tend to exceed capacities, apparently on the principle that "nothing is impossible for Communist industry". Thirdly, rigid planning and crude incentives tend to

create additional bottlenecks. Fourth, the smoldering conflict between the regime and the people causes trouble from time to time.¹ These conditions cause a good deal of irregularity and delays in the performance of the machinery industries, which are reflected in recurrent complaints about "unrhythmical production": a frame is ready but the inner works are not; a production goal stated in terms of gross volume is met, but the assortment is wrong; the end item is finished but there are no spare parts; export deliveries usually slump after the first of the year and are pushed up by special efforts toward the end of the annual planning period. These irregularities often cause sudden import requirements for special items.

Thus East Germany's requirements for Western machinery and parts, and for special materials for the machine building industry, derive partly from foreseen needs and partly from unforeseen bottlenecks in that industry. Various examples have appeared in refugee reports.²

The foreign trade organization "DIA-Invest-Export," which is in charge of the exports of complete factory installations, has lately handled orders for textile mills in Turkey (3 factories), Bulgaria (4 factories, Egypt

¹The refugee stream from East Germany currently removes from 2000 to 3000 people a month from industrial and handicraft occupations and from 200 to 300 from technical occupations. (Federal Republic, Ministry for Refugees, Geschäftsstatistik über das Notaufnahmeverfahren, monthly). Migration of workers in the opposite direction and some hiring of foreign workers (in shipyards) somewhat cushion the net effect of the flight movement. Managers of some private firms have fled from the Zone; the entire top management groups of two medium machinery firms did so recently. A worker loading automobiles for export was jailed for having systematically removed the ignition keys from each shipment. Incidents of this kind are reported from time to time.

²The several refugee reports that have been utilized are lettered A, B, C and so forth.

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(1 factory), and negotiated for other projects in Yugoslavia, the Sudan and elsewhere. An official of the organization who fled to the West in early 1958 (A) reported that the execution of factory installation exports depends directly on supplies of components from the West, in particular of automatic spinning machinery and control systems from West Germany.

Two other refugees formerly employed with the "DIA-Energy-and-Power Plant-Export" reported in late 1957 (B) that various imports were required if East Germany was to complete export orders for power plants in Egypt, China and elsewhere. Some of the power plants were to be installed in sugar mills to be set up abroad. According to these reporters, "a variety of Western products are needed to complete these installations, e.g., electrical equipment designed for high-tension installations, motors, equipment designed for use in tropical climate, and pumps". They stated further that "the two power plant projects in Egypt depend to a considerable degree on equipment to be supplied by AEG and Siemens," the two large West German electrical machinery producers. The East German organization also reportedly bought construction equipment in West Germany and used it in erecting the plants overseas. Another report along the same lines (C) stated that the construction of a dairy combine in Rumania over the period from 1958 to 1960 would involve 2 million rubles worth of equipment from East Germany and 1 million from West Germany.

Still another refugee (D), knowledgeable in the East German automobile industry, described the dependence of that industry on West German supplies of sheet steel, safety glass, resins, alloy steel and non-ferrous metals (late 1957). And another one (E) stated that a liquid oxygen plant ordered by the East German air force required importation of steel bottles from Austria.

Table 7 lists a number of other cases that have become known through refugee interviews.¹

Since West Germany is the most important supplier of machinery, the composition of its aggregate deliveries is particularly interesting. Table 8 shows these deliveries for the several groups of machinery in 1957 and 1958, as well as major sub-groups. The total value of the deliveries was about 40 million dollars for each year, with component items showing both declines and increases from 1957 to 1958. Refrigerating equipment and electric wire and cable showed notable increases.

¹
Occasionally, dependence on Western imports is also acknowledged in the official East German press, although such instances are rare. Der Aussenhandel, No. 19, 1958 wrote as follows on p. 655: "It can happen that despite all efforts of the toilers and despite considerable increases in production the supply of electrical components for larger units (Elektrische Ausrüstungen für Komplettierungen) does not cover requirements. At the moment, this is the case with low-voltage switches. In no case, however, should one refuse export orders for such reasons, or endanger them through long delays of delivery; one must find other ways.

At the Leipzig spring fair of 1958 we made contact with Austrian firms which can supply, on short notice and at favorable prices, the necessary electrical components. The Austrians offered to order a large machine-tool unit from us, in exchange...."

The author went on to criticize an agency of the East German foreign trade monopoly for being too slow in handling such cases.

On 1 August 1957, the East Berlin newspaper Die Wirtschaft reported that machinery exports to the Soviet Union, valued at 33 million D-marks, were being held up for lack of electrical components, notably switches.

Table 7
REPORTED CASES OF WESTERN IMPORT NEEDS
IN THE EAST GERMAN MACHINERY INDUSTRY

Western Import Needs Reported	Users and Dates	Finished Products and Destinations
(E) Aluminum-plated mats. Mats. for cathodes Glass for electronic tubes (England) ¹ Germanium (W. Germany) Luminous mats. (England)	Communications equipment plant, early 1958	Electrical equipment
(F) Special oils (England) Paper (Sweden) Polyethylene (England, W. Germany) ²	Electrical cable plant, early 1959	Wire and cable
(G) Germanium-cutting equipment (sought)	Optical plant, late 1957	Semi-conductors, electronic research & dev.
(Q) Germanium (W. Berlin)	Communications equipment plant, spring 1958	Electronic equipment
(R) Tube glass ¹ Molybdenum wire ³ Wire filament (W. Germany)	Communications equipment plant, late 1958	Electronic tubes
(S) Sub-miniature tubes ⁴	Electronic tube factory, 1958	Electronic field eqp. for E. German army
(T) Copper sheets & tubing Valves of special steel Measuring devices (purity, temperature) Millivolt, milliamper meters Special bronze alloys Plastic sheets Nickel wire Quantity gauges ⁵	Several machine-building plants, cooperating early 1958	Liquid oxygen plants, mobile and stationary, for Karaganda missile sites and other Bloc destinations
(H) Large ball bearings (Switzerland)	1958	Hammer crushers for cement factories to be built in Soviet Union
(P) Turbine blades (ordered from England)	Aircraft engine plant, spring, 1959	Jet engines

For footnotes, see p.39.

Table 7 -- continued

Western Import Needs Reported	Users and Dates	Finished Products and Destinations
(I) Acid-resisting steel (W. Germany)	1957	Machinery for E. German chemical industry
(J) Extrusion presses (sought) Vacuum deep-drawing machine (sought)	1958	Plastics industry machinery; fiber glass machinery; synthetic rubber apparatus
(K) Tool steel (W. Germany) Seamless pipe (W. Germany) Ceramic core pressure filters (W. Germany) ⁶	Heavy machinery plant	--
(L) Crankshafts (sought from W. Germany) Valve springs (W. Germany) ⁷	Ship's engines producer Late 1956	Ships' diesel engines
(N) Chrome-nickel steel (sought)	Machinery plant	Dairy & Brewery heating, cooling, pumping equipment for export
(O) Electrical equipment components (4 million rubles of exports said to be held up by delay in deliveries from West)	--	Electrical equipment exports to Soviet Union
(M) Pipes for repair of freighter (delay in allocation of foreign exchange)	Shipyard, early 1958	East German freighter service

¹Locally made glass reputed to be too irregular.

²Report stated that VEB's Buna and Leuna had not yet succeeded in producing polyethylene of sufficient purity. In April, 1959, the West German Badische Anilin Company reportedly licensed Soviet production of the material.

³Low quality of Bloc material, low inventory reported.

⁴Delay in local deliveries "forced" factory to obtain tubes "illegally" from West Germany.

⁵This extensive report describes procurement from West Germany by various means.

⁶Materials arrive in limited amounts and are distributed to users as needed.

⁷Licensing of plant at Rostock by a West German firm reported.

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Table 8

WEST GERMAN DELIVERIES OF MACHINERY IN INTERZONAL TRADE^a
(in million D-Marks)

Groups and Sub-groups	Item	Value	
		1957	1958
32	General Machinery	111.9	103.2
3211,12,18	Machine Tools	10.7	11.0
3223	Diesel Engines	14.7	14.2
3233	Refrigerating Equipment	1.0	6.7
3236	Construction Machinery	6.8	4.2
3238	Mining Machinery	4.9	2.7
3251,52	Chemical Equipment	1.8	2.2
3265	Textile Machinery	5.0	4.1
33-34	Vehicles	2.8	2.6
36	Electrical Equipment	35.6	42.1
3625,26	Electric Wire & Cable	4.9	10.0
37	Precision Mechanics, Optics	13.2	10.4
Total		163.5	158.3

SOURCE: Der Warenverkehr....1958, and supplementary data obtained from Statistisches Bundesamt and Zentralverband der Elektrotechnischen Industrie.

^aThe grand total, group totals and sub-groups 3625,26 and 3251,52 include deliveries from West Berlin; the other sub-groups do not, and even omit some deliveries from the Federal Republic. Sub-groups listed are the ones showing deliveries from the Federal Republic in excess of 1 million dollars (4.2 million D-Marks) in at least one of the two years.

VI. SERVICES AND BERLIN TRAFFIC

The present paper will not attempt to discuss the balance of services between East Germany and Western countries in any detail. Two aspects of the situation, however, deserve some treatment, Western maritime transport on behalf of East Germany and East German services to the West in the Berlin context.

East Germany receives a greater amount of commercial services from Western countries than she renders to them. She utilizes Western shipping for most of her seaborne imports, i.e., for perhaps 10 to 15 per cent of her total imports; she probably channels something like 30 per cent of her seaborne trade through the port of Hamburg, and a substantial percentage of the traffic bound for her own Baltic ports through the Kiel Canal. The bulk of her foreign trade with Bloc countries and nearly all interzonal trade with West Germany go by rail.

The dependence on these Western shipping and harbor services is declining with the considerable efforts that are being made to expand the East German merchant marine through construction and purchases, and to develop the ports of Rostock and Wismar. At the beginning of 1959, East Germany owned 10 freighters of about 10,000 tons, each, 5 of which had been bought in the West fairly recently. Similarly, 3 of her smaller freighters (4,000 tons) had been bought abroad. In May, 1959, she bought the Swedish passenger liner "Stockholm". The East German Baltic ports should double their capacity, from 1957 to 1960, if construction advances according to plans, and thus should be able to handle considerably more than the total East German overseas tonnage that went through all ports in 1957. Nevertheless, as of now, East Germany still relies on a fair amount of Western shipping and related services.

The West could add to the impact of a commodity embargo by withholding its maritime services to East Germany; but the size of the additional effect would probably be small. It would depend on the amount of East German maritime trade, not directly affected by the commodity embargo, that is carried in Western ships. If the embargo covered all overseas commodity imports, the shipping and port services would cease automatically. This, however, is an extreme assumption. In the eventuality that an embargo were imposed by, say, the NATO countries and that overseas countries were ready to continue their exports to East Germany, the withholding of Western ships and the closing of Hamburg and the Kiel canal to East German traffic would obstruct the remaining overseas trade of East Germany to the extent that East German ships and harbors could not handle this trade. This obstruction might not inconvenience the East Germans greatly.

The closing of the port of Hamburg to the East Germans would probably accentuate the withdrawal of East German and Czechoslovak traffic from that port that is now under way. This would be painful to some local interests but it would also stimulate some further adaptation in that area to the disappearance of its former economic hinterland. The situation might, for instance, give greater urgency to the languishing project of a North-South canal that would link the lower Elbe with the heavy industry center of Salzgitter.

While ordinary commercial services give little additional leverage to the West in economic warfare against East Germany, the political geography of Berlin provides the Soviets and East Germans with a formidable counter lever. Communist control of the overland and canal routes from West Germany to Berlin is the basis for a system of blackmail by which East Germany extracts considerable revenues and compels West German compliance with various unfavorable commercial and political arrangements. This is obviously a most severe

disability of the West in dealing with the East Germans. It is only imperfectly measured by the 40 million dollars per year which the East Germans are collecting presently for traffic related to Berlin.¹

As long as East Germany does not attempt to impose political-"administrative" conditions and financial charges on the Berlin traffic that the West will reject, she will probably be safe from any serious economic countermeasures, such as those contemplated in this paper. If East Germany, however, forced an interruption of the traffic or attacked Berlin directly, the West would be freed from its concern and could retaliate. The experience of the Berlin blockade of 1948-49 demonstrated that playing this trump may not win the game for the Soviets. It appears that in 1959 they are seeking to win by merely threatening to blockade the forces protecting Berlin and by extracting Western concessions in prolonged negotiations. This game may continue for some time, or it may not. At present it does not look unprofitable from the communist point of view.

For the purposes of this paper, the significance of the exposure of Berlin to Soviet-East German blackmail is clear. As long as joint West German-Berlin-Allied interests are maintained in the Berlin complex and traffic continues uninterrupted, there will be no basis for an embargo of East Germany. If the Soviets or East Germans should deny the West the exercise of these interests and, in particular, access to the city, one of the main factors keeping the West from imposing an embargo would fall away at the same time that a motivation for the measures would be given.

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A confidential West German government source put the East German revenues from Autobahn fees in 1958 at about 9 million dollars, railroad traffic from and to Berlin at about 17 million, canal fees at 3 million, and inter-urban (S-Bahn) services in West Berlin at 12 million. These revenues are received in D-mark-West and they are probably a multiple of the costs involved in providing the services.

VII. CONCLUSIONS

The analysis of East Germany's import requirements from Western Europe points to a considerable variety of articles which East Germany prefers to get, and has been able to get, from Western Europe. Chemical and machinery products are notable for their preponderance of Western sources, and so are special steels and other materials; but common products such as bituminous coal and phosphates should not be overlooked. Although the Soviet Union and other Bloc countries supply the bulk of these, the West furnishes a significant share. Generally, superior quality and easier availability induce many imports from the West, and there are often other advantages connected with getting the goods from Western sources.

Despite the dominant place of the Soviet Bloc in total East German imports, the dependence on Western sources is therefore not negligible. The 23 per cent overall share of Western Europe in East German imports, half of which comes from West Germany, typically covers items which the Soviet Bloc, for various reasons, has preferred not to supply to East Germany. This circumstance points to a relatively high essentiality of imports from Western Europe. A denial of these imports and associated services would cause much inconvenience to East Germany and a variety of bottlenecks.

The specific effects on the East German economy, if these imports were blocked, cannot be predicted clearly. The primary effects would appear over a wide range of economic activities — and fairly quickly, because of the specialized nature of imported materials and equipment because of the tightness of inventories. They would tend to retard the execution of many projects in the local investment and consumption programs, and in the export program. Left unchecked, these influences would disturb that highly stressed economic system and force it off its timetable. Even if East Germany attempted

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to re-allocate its resources to cushion the blow on some more essential projects, it could not help but fall behind on some of the tasks to which the regime is committed. Simply to put the burden on the consumer sector would not be entirely feasible, especially in the short run, and in view of the political emphasis on rivalling West Germany in that sector, it would perhaps not be profitable.

The major uncertainty lies in the contribution that the Soviet Union might want to make toward alleviating the plight of its favorite Satellite. This contribution might consist of temporarily foregoing some of East Germany's exports to the Bloc area, or of substituting Bloc supplies for Western imports. In either case, the burden of the Western trade embargo would be partly shifted to the Soviet Union or other Bloc countries. This would ease the East German situation, but would not alleviate it completely because of the specificity of many of the imports from the West and the probable difficulty of finding substitutes for all of them in the short run.

The impact on the Soviet economy cannot be analyzed here. Some East German exports to the Soviet Union are linked to important projects there; and if the Soviet furnished substitute exports to East Germany, it would undoubtedly hurt presently planned projects in the Bloc. All that can be said here is that a Western embargo on exports to East Germany in a crisis situation would disturb the Soviet Bloc system and force the Soviet Union to accept some of the direct economic costs. Other factors would determine the political effects of this disturbance.

A short-term Western embargo on East German trade would also have consequences in Western Europe. Interruption of imports from East Germany would probably not pose a serious problem. Substitutes could easily be found for East German manufactured goods and potash. In the case of lignite, a determined

conversion effort could reduce requirements substantially and facilitate the replacement of lignite by other fuels. Sales problems would probably cause more concern to the West German government and other Western European governments. The strength of the sales pressures coming from some of their industries will depend, of course, on the state of markets; the West German steel industry, for instance, would have been more unhappy about stopping its East German sales in late 1958 than in mid-1959. In any event, some interests would be affected and there would be complaints. Whether the West German government would be ready to override these pressures in a crisis developing over Berlin would depend on its resolution and on the steps taken by the NATO allies.

Considering the quantities of trade and the political interests involved, it is clear that West Germany's position would be of first importance in deciding on an embargo of East German trade. But it is also clear that that position would be influenced by the readiness of Britain and possibly other countries, to join in the embargo and by the readiness of the United States to oppose Soviet-East German moves by appropriate measures. Without British cooperation, West Germany would probably fear that Britain and others would seek to make trade gains at her expense; and without resolute American action, she might not be ready to take any measures against East German interference with Allied Berlin traffic.

While, on the Western side, the issue of economic countermeasures against East Germany raises problems of Western cooperation, economic and political considerations may broaden the Eastern target of such countermeasures and raise wider problems. To put greater pressure on the Soviet Union, an embargo on its trade and on the trade of the entire Soviet Bloc might be considered. This paper will not analyze the complex problems that such a proposition would present. The additional economic inconvenience caused to East Germany and the

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Bloc by a Bloc-wide embargo would have to be weighed against the political difficulties of bringing it about, and the outcome is not obvious. It would depend in part on the form of the Soviet challenge and the Western responses in other fields. To prevent a simple re-direction of East German trade through other Bloc countries, however, Western trade with these countries would have to be limited and controlled in some fashion.

Appendix

SOVIET-EAST GERMAN TRADE IN THE STATISTICS OF THE TWO COUNTRIES

Soviet and East German statistics of the aggregate commodity trade between the two countries agree in some instances and differ considerably in others. Since both sources supposedly record trade on the basis of values f.o.b.-frontier-of-exporting-country one should expect a higher degree of agreement. Some differences may have technical-administrative causes; but some of them are so large that one may suspect that what was counted as an export or import by the agencies of one country was not so counted by those of the other; and one may speculate about the nature of these differences in treatment.

In 1955 and 1956, both sources indicated an East German surplus to the USSR. (See Tables A-1 and A-2.) In 1955 this surplus appeared larger in the East German statistics, in 1956 it appeared larger in the Soviet statistics. For the two years taken together the two sources agreed fairly closely, leaving an aggregate discrepancy of only 93 million rubles.

In 1957, however, the statistics diverged greatly. Soviet exports were 504 million rubles higher than East German imports, and Soviet imports were 182 million rubles lower than East German exports. Soviet sources thus showed a Soviet export surplus of 391 million rubles to East Germany, and East German sources showed a surplus in the opposite direction of 295 million rubles. These differences could reflect some basic changes in accounting that may have accompanied the occupation cost settlement (a reduction by 50 per cent) and the new uranium price settlement, both of which presumably went into effect in the latter part of 1956 or at the beginning of 1957.

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Table A-1

SOVIET-EAST GERMAN COMMODITY TRADE
(in million rubles)

Year	Soviet Union to East Germany			East Germany to Soviet Union		
	Soviet Exports ^a	East German Imports ^b	Difference	East German Exports ^b	Soviet Imports ^a	Difference
1955	1,915	1,688	227	2,063	2,026	-37
1956	2,285	2,228	57	2,277	2,505	228
1957	3,448	2,944	504	3,239	3,057	-182
1958	3,199	2,777	422	3,384	3,264	-120

^aVneshniaia Torgovlia, 1957-1958

^bStatistisches Jahrbuch, 1957 and Vierteljahrshefte zur Statistik, No. 1, 1958, p. 20.

Table A-2

SOVIET-EAST GERMAN COMMODITY TRADE BALANCE
(in million rubles)

Year	Trade Balance (East Germany Export Surplus: +) according to	
	Soviet Statistics	East German Statistics
1955	+111	+375
1956	+220	+49
1957	-391	+295
1958	+65	+607

Source: Table A-1

The uranium settlement boosted the apparent value of East German exports and Soviet imports. If carried through simultaneously on both sides, the arrangement should be reflected equally in the two accounts. The occupation cost settlement, however, may have raised the value of East German exports but not of Soviet imports; and it may have raised the value of Soviet exports but not of East German imports. This may have happened by way of the Soviets counting as exports, transfers of Soviet commodities to a Soviet agency in East Germany that either turned over the goods to the Soviet troops or sold them to the East German regime for local currency. The East Germans may not have counted these Soviet shipments as imports, perhaps treating them as an internal Soviet transaction. On the other hand, the East Germans may have counted their deliveries of goods to the Soviet occupation forces as exports, and the Soviet Union may not have counted them as imports. (They did not enter Soviet territory.)¹ These transactions would have amounted to the 50 per cent of Soviet occupation costs that were "credited" to East Germany.² Their net effect on the trade statistics would have been to pull Soviet and East German statistics on the commodity flows between the two countries apart by the approximate amount of the occupation cost "credit".

¹ The introduction of such an accounting system may have something to do with the astounding rise in the share of consumer goods in East German exports to the USSR from 3 per cent in 1956 to 15 per cent in 1957 (Der Aussenhandel, No. 21, 1957, p. 749), for which no evidence can be found in the detailed Soviet import statistics for 1956/1957.

² According to information given by a former high official of the East German Planning Commission, who defected to the West in 1957, the Soviets treated the reduction of occupation cost levies and the uranium price adjustment as "credits" to the East Germans. These credits were the major part of a "flow of Soviet credits" to East Germany that was to total about 7.5 billion rubles over the years 1956-1960. (The remaining part, about one-fourth, was said to consist of goods and foreign currency credits.)

Direct evidence of the suggested accounting practice is not available; but the observed divergencies in the 1957 Soviet and East German trade data seem consistent with it:

1. Soviet and East German imports in 1957 were in approximate balance. The difference of 113 million rubles in favor of East Germany could have been a counterpart of a net balance on service account in favor of the Soviet Union, added to a balanced trade flow under the trade agreement.

2. The aggregate excess of each country's exports over the other country's imports amounted to 686 million rubles. The planned occupation cost reduction per year (on a 50 per cent basis) was reported as amounting to 800 million rubles.¹ The figures are of the same order of magnitude.

These two observations, of course, do not prove the suggested practices. Soviet foreign trade data for 1958, which have not yet been published, might shed further light on the matter. In that year, the Soviets cancelled the remaining 50 per cent of the occupation costs carried by East Germany.² If trade accounting continued as suggested, one should expect an even greater divergence of Soviet and East German statistics for 1958 and 1959.

¹ Source: Same defector from the Planning Commission

² This "big present which comrade Khrushchev made to the 5th party congress" of the SED in July, 1958 was valued by East German trade minister Rau at 600 million East marks, i.e., 1,080 million rubles at the official rate. Der Pausenhandel, No. 15, 1958, p. 529.